

UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Entomology and Plant Quarantine  
Washington, D. C.

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P.E.P.Q.--486

January 28, 1939.

Sec. 301.72-5b Administrative Instructions -  
Modifying the restrictions of the white-fringed beetle quarantine by authorizing treatment of plants in pots or in soil-balls not exceeding three (3) inches in diameter

Recent experimental work by the Bureau of Entomology and Plant Quarantine of the U. S. Department of Agriculture has proven that certain potted plants, hereinafter listed, can safely and successfully be fumigated for the control of white-fringed beetle.

TREATMENT AUTHORIZED

Under provisions contained in Regulation 5(a)(Sec. 301.72-5) supplemental to Notice of Quarantine No. 72 (Sec. 301.72), the Chief of the Bureau of Entomology and Plant Quarantine authorizes as a prerequisite to certification, the following method of treatment, for certain kinds and sizes of potted and baled and burlaped plants, when done under the supervision of an authorized inspector of the U. S. Department of Agriculture.

FUMIGATION TREATMENT METHOD

(1) Fumigation must be done with methyl bromide at a dosage of one pound per 1,000 cubic feet, including the space occupied by the plants, for a period of 4 hours, the soil in which the pots are planted and the air in the fumigation chamber to be at a temperature or not less than 85° F.

(2) Such fumigation shall apply only to those plants in 3-inch pots or smaller, or in soil-balls not larger than those which would be contained in 3-inch pots, and the plants shall be stacked on racks so that the gas mixture can have access to all sides of the pots or soil-ball.

(3) The fumigation shall be done in a tight chamber with gas-tight doors.

(4) After the chamber is loaded and closed, the appropriate amount of methyl bromide shall be volatilized therein and the air-gas mixture shall be circulated by means of a fan or blower throughout the entire 4-hour fumigation period.

SUGGESTIONS

(1) A fumigation chamber, lined with sheet metal throughout and with a metal-covered door closing against gaskets and held tightly in place by refrigerator door fasteners, is recommended.

(2) A list of plants, which have been fumigated experimentally with methyl bromide according to the recommendations here given and are classified as to their ability to withstand such treatment as indicated by these experiments, is attached.

DISCLAIMER

In authorizing the movement of potted plants or nursery stock fumigated according to the requirements stated above, it is understood that no liability shall attach either to the U. S. Department of Agriculture or to any of its employees in the event of injury resulting from the use of the fumigant.

CAUTION

Methyl bromide is a gas at ordinary temperatures. It is colorless and practically odorless in concentrations used for fumigation of plants. It is a poison, and the operator should use an approved gas mask when exposed to the gas at concentrations used in fumigation. The plants in the fumigation chamber should be well aerated by blowing air through them and the room adequately ventilated before it is entered.

(Sec. 301.72-5) [B.E.P.Q.--486, Jan. 28, 1939.]

LEE A. STRONG  
Chief, Bureau of Entomology and Plant Quarantine,

The following plants, known to the trade by the following names, have been fumigated in up to 3-inch pots with methyl bromide at the rate of one pound per 1,000 cubic feet for 4 hours at 85° F. with the results indicated:

No injury to the following:

<u>Areca lutescens</u>	Habrus and Hahns ivy
<u>Aspidistra lurida</u>	Letenia berbonica
Boston fern	Nephthedes
Cape-jasmine (Gardenia)	Norwood fern
Christmas cactus	<u>Pandanus veitchi</u> . Plants which have pure white leaves not to be fumigated.
<u>Codiaeum</u> , corkscrew croton	Pedilanthus
" croton Robt. Craig	Peperomia (green)
" <u>croton punctatum</u>	Peperomia (variegated)
<u>Cressulus arborences</u>	<u>Philodendron cordatum</u>
<u>Dracaena</u> , messenger	<u>Phoenix roebelini</u>
<u>Ficus elastica</u> (variegated)	Sansevieria
" (green)	
" <u>nitida</u>	

Injury not severe - confined to shedding some of lower, older leaves,  
to the following:

<u>Dracaena</u> , M. Story	Hibiscus (red)
Dieffenbachia	Poinsettia
Ficus pendurata	

Injury very severe to the following - fumigation not recommended:

<u>Allamanda Johnsoni</u>	<u>Dracaena warneckii</u>
Chrysanthemum	<u>Pothos wilcoxii</u>

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